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(Without alignments)
175.874 Million cell updates/sec
                                                                                                                                                                                         1 MDFQVQIFSFLLISASVILS.......CQQWSSYPLFFGGGTKVEIK 128
                                                                                          May 7, 2002, 12:00:48 ; Search time 53.91 Seconds
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                al number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                       522463 seqs, 74073290 residues
                                                       OM protein - protein search, using sw model
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                      Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                             US-09-772-103-8
                                                                                                                                                                                                                            BLOSUM62
                                                                                                                                                    Title:
Perfect score:
                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                     Sequence:
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Database : A\_Geneseq\_1101:\*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		Humanised anti-CTL Humanised 5C7.29 a Anti-human VEGF re Anti-human Fit-1 a Humanised antibody Humanised light ch REI human Ab I cha Anti-GM2 light cha Intermediate seque Anti-human VEGF re Anti-human VEGF re Anti-human Fit-1 a
SUMMARIES	О	AAG66522 AAR90684 AAR77597 AAR77597 AAR41398 AAR41411 AAR53345 AAR53345 AAR53345 AAR58394 AAR28371 AAR77599
	OB ID	22 22 22 22 22 118 118 118 20 20 20 21 22 A
	Query Match Length DB	128 128 128 128 235 235 133 133 126
dР	Query	93.0 93.0 91.6 91.5 90.5 90.1 90.1 89.6
	Score	655 600 600 600 599 593 590 590 587
	Result No.	1 2 3 3 4 4 4 4 7 7 1 1 1 1 1 1 1

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AAW73179 AAW73180 AAY28375 AAY28376 AAW41410 AAW73181	AAY2837 AAY7760 AAB7887	AAW7	AAY28	AAY28	AAW73	AAB07	AAW73	AAY28	AAW73	AAY283	AAGGE	AAW413	AAY775	<b>AAB</b> 788	AAR270	AABBY 65	AAWSOL	AAR8810	AAR90690
19 19 20 20 18 19																	2 5	22	13
130 130 130 130 130 235 130	0 9 9	000	00	0	20	_													
89.2 89.2 89.2 89.0 88.5	88.5 87.5 87.5	87.3 87.3 87.2	87.2 86.7	86.7	86.6	86.4	82.8	85.8	85. 7.5	82.9	80.6	8.6	7.0	4.07	79.2	79.1	78.9	78.8	ر. ه/ د
584 584 583 583 580	573 573	572 572 571	571 568	568	567	566	562	562	260 560	543	528	200	020	520	519	518	517	516	<b>\$</b> TC
12 13 14 15 16 17	110 20 20 20 21	22 23	25	26 27	28	<b>7</b> M	31	32	34	35	37	a O M	9 6	40	41	42	43	4 4 7 2	2

## ALIGNMENTS

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Human; CTLA4; cytotoxic T lymphocyte associated antigen 4; anti-CTLA4;
Immunosuppressive; immunomodulator; antiallergic; vaccine; antibody;
T cell; humanised antibody; autoimmune disorder; graft rejection;
allergy; light chain.
                                                                                                                                                                                                                                                                                                         Collins M, Gray GS, Morris D;
                  AAG66522 standard; Protein; 128 AA.
                                                                                                                                                                                                                                                                                                  Carreno BM, Wood C, Turner K, Co.
O'Hara D, Hinton P, Tsurushita N;
                                                                              Humanised anti-CTLA4 light chain.
                                                                                                                                                                                                                                     26-JAN-2001; 2001WO-US02653.
                                                                                                                                                                                                                                                         27-JAN-2000; 2000US-0178473.
                                                          22-OCT-2001 (first entry)
                                                                                                                                                                                                                                                                                                                               WPI; 2001-483195/52.
N-PSDB; AAH76440, AAH76442.
                                                                                                                                                                                                                                                                             (GEMY ) GENETICS INST INC.
                                                                                                                                                                                             WO200154732-A1.
                                                                                                                                                                Mus musculus.
                                                                                                                                                      Homo sapiens,
                                                                                                                                                                                                                 02-AUG-2001.
                                                                                                                                                                            Synthetic,
                                        AAG66522;
          AAG66522
RESULT
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2252×8
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The invention relates to an antibody-toxic group conjugate comprising can antibody that specifically recognises a molecule expressed only on a crivated T cells, and a toxic group. The T cell molecule is cal certain the relation of the thick of the comprising a certain cytotoxic T lymphocyte associated antibody of the invention is a humanised anti-cTLA4 antibody comprising a sequence of 128 or 142 amino acids fully defined in the comprising a sequence of 128 or 142 amino acids fully defined in the comprision and antibody-toxic group conjugate is useful for modulating the immune response to a subject suffering from a disorder modulating the immune response to a therapeutic protein.

The antibody is also useful for research purposes, e.g., in staining tragments of the receptor, for vaccine preparation, and for determining fragments of the receptor, for vaccine preparation, and for determining fragments of the receptor, for vaccine preparation, and for determining present sequence is the light chain of humanised anti-CTLA4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 pgkapklliydtsnlasgvpsrfsgsgsgtdytltisslgpedfatyycggwssypltfg 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 PGKAPKLLIYDTSNLASGVPSRFSGSGSTDYTLTISSLQPEDFATYYCQQWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
Novel antibody-toxic group conjugate comprising an antibody that recognizes a molecule expressed only on activated T cells, useful for modulating immune response for treating autoimmune disorder, allergic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 655; DB 22; Length 128; 100.0%; Pred. No. 1.1e-41; tive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Humanized 5C7.29 antibody light chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR90684 standard; protein; 128 AA.
                                                                                                                        Claim 14; Fig 9; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (6-AUG-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 ggtkveik 128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                              response
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/note= 71..77

Region

Synthetic.

Protein

Region Region

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This humanized 5C7.29 antibody light chain variable region, together with the corresponding heavy chain variable region (see AAR90685).

Trail the corresponding heavy chain variable region (see AAR90685).

The humanized antibody that specifically binds to P- and E-
calectin and inhibits the binding of selectins to a counterreceptor.

The humanized light chain variable region comtains complementarity determining regions (CRS) having amino acid sequences from non-human antibody light chain and consists of a variable region framework sequence when an expirable region framework sequence in the humanized human light chain variable region framework sequence. The humanized cantibody may be used in the diagnosis and therapy of inflammation can conditions such as isochaemia-reperfusion injury, adult and conditions such as isochaemia-reperfusion injury, adult and autoimmune disease. It may also be used in affinity and autoimmune disease. It may also be used in affinity and autoimmune disease. It may also be used in affinity and autoimmune disease. It may also be used in affinity and in the screening of therapeutic agents having the same binding specificity as a cross-reacting antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anti-human VEGF receptor Flt-1 antibody related peptide sequence #92.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antibody; human; vascular endothelial growth factor; VEGF receptor; Flt-1; neovascularisation; cell proliferation; metastasis; tumour; rheumatoid arthritis; retinopathy; psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Monoclonal and humanised antibodies having specificity for P- and E-selectin - useful for treatment of inflammatory diseases, e.g. ischaemia-reperfusion injury, psorlasis, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6; Indels
/note= "complementarity determining region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93.0%; Score 609; DB 17;
93.0%; Pred. No. 2.9e-38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pred. No. 2.9e
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY77597 standard; peptide; 128 AA.
                                                                                                                                                                                                                                                                                                                                                                                                 Claim 13; Fig 8A; 89pp; English.
                                                                                                                                                                                             (PROT-) PROTEIN DESIGN LABS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAY-2000 (first entry)
                                                                                                                                                           94US-0259963.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 93.0 Matches 119; Conservative
                                                                                                                         95WO-US07302
                                                                                                                                                                                                                                                                         WPI; 1996-049423/05.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           128 AA;
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                                                                                                                                                                                                                                                                                           N-PSDB; AAT15537
                                                                                                                                                                 14-JUN-1994;
                                                                                                                               07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY77597;
                                                         WO9534324-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence
                                                                                           21-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                           Berg EL;
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                       δλ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "humanized antibody mature light chain"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note- "complementarity determining region"
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The invention relates to a gene recombinant antibody that has specific reaction with human vascular endothelial growth factor (VBGF) receptor Filt-1. The antibodies are useful for diagnosis and as remedies for diseases due to abnormal neovascularisation such as proliferation or metastasis of solid tumor, arthritis in rheumatoid arthrifis, diabetic retinopathy, premature retinopathy and psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Differentiation; monocyte; macrophage; haematopoietic stem cell; cancer; vascular endothelial growth factor; VEGF; Flt-1; inflammation; antibody; delayed hypersensitivity; malignant tumour; arteriosclerosis.
                                                                                                                                                                                                                            Gene recombinant antibodies, useful for diagnosis and as remedies for
                                                                                                                                                                                                                                          diseases due to abnormal neovascularization e.g. proliferation or metastasis of solid tumor, rheumatoid arthritis, diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLIISSLQPEDFATYYCQQWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                   91.6%; Score 600; DB 21; Length 128; 91.4%; Pred. No. 1.3e-37; Live 5; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-human Flt-1 antibody VL CDR protein sequence SEQ ID 88.
                                                                                                                                                               Shitara K, Ito M, Kawada Y, Nakamura K;
                                                                                                                                                                                                                                                                                         Claim 27; Page 200-201; 210pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB78866 standard; Protein; 128 AA.
                                                                                                                                       (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                           99WO-JP02661.
                                                                                                                    98JP-0139000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-JUN-2000; 2000WO-JP03957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best_Local Similarity 91.4*
Matches 117; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-APR-2001 (first entry)
                                                                                                                                                                                       WPI: 2000-072431/06.
                                                                                                                                                                                                                                                                                                                                                                                                            128 AA;
                                                                                                                                                                                                       N-PSDB; AA287745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 GGTKVEIK 128
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                                    WO9960025-A1.
                                                                                    20-MAY-1999;
                                                                                                              20-MAY-1998;
                                                              25-NOV-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200079275-A1.
                                                                                                                                                                                                                                                                                                                                                                                                           Seguence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB78866;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
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This invention relates to a reagent for detecting differentiation of monocytes and macrophages from haematopoietic stem calls, containing a substance which binds to human vascular endothelial growth factor (VBGF) (c. substance which binds to human vascular endothelial growth factor (VBGF) (disease in which the differentiation of monocytes and macrophages is importated, using the reagent, and an agent for the treatment of diseases of diagnosed using the method, containing a substance which binds to Fit-1 or a substance which inhibits the signal transduction of Fit-1. Diseases which may be diagnosed or treated include inflammation, delayed containing a substance which hinds to Fit-1 by the state of the substance of the substance which inhibits the signal transduction of Fit-1. Diseases ARF70190 - ARF70244, AAF70251 and ARF70258 represent DNA sequences concoding anti-human Fit-1 monoclonal antibody fragments, and construction of the antibody. The monoclonal cantibody is used in the reagent of the invention. PCR Parimers AAF70245 or AAF70251) are used in the isolation of the antibody the antibody continuing AAF70251 are used in the isolation of the antibody continuing AAF70251 are used in the isolation of the antibody continuing AAF70251 are used in the isolation of the antibody continuing AAF70251 are used in the isolation of the antibody continues. Protein sequences AAB78848 - AAB78870 represent fragments
                                                                                                                                                                          Substances binding to human vascular endothelial growth factor receptor Flt-1, used for diagnosis and treatment of inflammatory diseases, arteriosclerosis, cancer and delayed hypersensitivity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-CEA antibody; carcinoembryonic antigen; 806.077 Ab; cancer therapy; cancer diagnosis; complementarity determining region; Fd chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYXCQOWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91.6%; Score 600; DB 22;
91.4%; Pred. No. 1.3e-37;
ive 5; Mismatches 6;
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                                                                                                                                                                                                                                                  Example 3; Page 156; 164pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW41398 standard; Protein; 235 AA.
                                                    (KYOW ) KYOWA HAKKO KOGYO KK.
                         99JP-0171709.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1998 (first entry)
                                                                                       Shitara K, Shibuya M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chimeric - Homo sapiens.
                                                                                                                          WPI; 2001-080847/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity es 117; Conserve
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                                                                                                                                             N-PSDB; AAF70222
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                 17-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9742329-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW41398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                     This sequence is the light chain variable region of the antibody of antibody. The invention. The antibody is an anti-CEA (carcinoembryonic antigen) antibody (806.077 Ab). Host cells or transpente organisms transformed with DNA encoding the antibody are used to make the antibody or conjugate. The conjugate is used in a medicament suitable for intravenous administration. The conjugate can be used for cancer therapy, selectively killing tumour cells. The antibody can be used for in vivo or in vitro
                                                                                                                                                                                                                                                                                                                                                                                                        61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCOQWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                Query Match 91.5%; Score 599; DB 18; Length 235; Best Local Similarity 91.4%; Pred. No. 2.8e-37; Matches 117; Conservative 5; Mismatches 6; Indels
                                                                                                                                      Anti-carcinoembryonic antigen antibody 806.077 Ab - used for
                                                                                                                                                                        Example 11; Page 124-125; 208pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW41411 standard; Protein; 235 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Humanised light chain HuVK4-HuCK.
                                                                                                                                                       diagnosis and therapy of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97WO-GB01165.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97GB-0003103.
                                                                                             Emery SC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-JUN-1998 (first entry)
                       97WO-GB01165.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chimeric - Homo sapiens.
Chimeric - Mus sp.
                                           97GB-0003103
96GB-0009405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ZENE ) ZENECA LTD.
                                                                                              copley CG, Edge MD,
                                                                                                                                                                                                                                                                        diagnosis of cancer.
                                                                                                                  WPI; 1997-558987/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 qgtkleik 128
                                                                                                                                                                                                                                                                                              235 AA;
                                                                           (ZENE ) ZENECA LTD.
                                                                                                                             N-PSDB; AAV17297]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-1997;
04-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09742329-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-NOV-1997.
                        29-APR-1997;
                                              14-FEB-1997;
                                                        04-MAY-1996;
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                                                                                                                                                               This sequence is the HuVK4-HuCK light chain of the antibody of the invention. The antibody is an anti-CEA (carcinoembryonic antigen) antibody (806.077 Ab). Host cells or transgenic organisms transformed antibody (806.077 Ab). Host cells or transgenic organisms transformed conjugate. The antibody, are used to make the antibody and organizate. The conjugate is used in a medicament suitable for intravenous administration. The conjugate can be used for cancer therapy, selectively silling tumour cells. The antibody can be used for in vivo or in vitro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MDFQVQIFSFLLISASVILSRCDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                          90.5%; Score 593; DB 18; Length 235; 90.6%; Pred. No. 7.7e-37; Indels tive 5; Mismatches 7; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monoclonal antibody; Ab; ganglioside GM2; chimera; chain; chimeric antibody; expression vector; heavy; light; chain; hypervariable region; CDR; constant region; hybridoma; ig; immunoglobulin; promoter; enhancer.
                                                                             Anti-carcinoembryonic antigen antibody 806.077 Ab - used for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hasegawa M, Koike M, Kuwana Y, Nakamura K;
                                                                                                                                              Example 45; Page 164-165; 208pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REI human Ab L chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR53345 standard; Protein; 133 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (KYOW ) KYOWA HAKKO KOGYO KK.
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                                                                                                             diagnosis and therapy of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93AU-0046181.
Emery SC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-NOV-1994 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 90.6%
Matches 116; Conservative
                                                                                                                                                                                                                                                                                                                               diagnosis of cancer.
    Edge MD,
                                       WPI; 1997-558987/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 qgtkleik 128
                                                                                                                                                                                                                                                                                                                                                                       235 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-SEP-1992;
                                                            N-PSDB; AAV17315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AU9346181-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Shitara K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hanai N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR53345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
          Copley CG,
                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR53345
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                                                                                                                                                                                                                                                                      61 PGKAPKLLIYDTSNIASGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCQOWSSYPLTFG 120
                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                             1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                         This is the ligation product formed when peptide fragments AAY28390 to AAY28392 replace the complementarity determining regions of REI.
                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antibody; nucleotide; genomic; hypervariable region;
chimeric; light chain; heavy chain; plasmid; ligation product.
                                                                                                                                                                                        90.1%; Score 590; DB 15; Length 133;
89.8%; Pred. No. 7.5e-37;
tive 6; Mismatches 7; Indels (
                                                                                                    REI was used as human Ab L chain variable region-encoding DNA to which CDRs were to be transplanted. DNAs given in AAQ63448-53 Were synthesised and ligated in order to obtain a DNA, hKM796L (AAQ77823).
                                     Humanised antibody specific for ganglioside GM2 – used for
producing a cytocidal effect on cancers such as melanoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nakamura K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-GM2 light chain hKM796L ligation product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kuwana Y,
                                                                                Example 2; Page 122-123; 191pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chimeric human antibody expression vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 2; Column 159-161; 188pp; English.
                                                                                                                                                                                                                                                                                                                                                                                   AAY28394 standard; Protein; 133 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hasegawa M, Koike M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95US-0483528.
93US-0116778.
                                                             neuroblastoma and glioma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95US-0483528.
                                                                                                                                                                                   Ouery Match
Pest Local Similarity 89.89
Atches 115; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            04-NOV-1999 (first entry)
          WPI; 1994-126857/16.
                                                                                                                                                           133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-468416/39.
                     N-PSDB; AAQ77823
                                                                                                                                                                                                                                                                                                             121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                  121 ggtkveik 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US5939532-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-AUG-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shitara K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hanai N,
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Chimeric human antibodies of the invention are useful in the treatment of cancer, especially that which is of neural ectodermal origin. In contrast to prior art constructs based on mouse monoclonal antibodies, the chimeric human antibodies do not cause anti-mouse immunoglobulin production. The chimeric human antibodies have a prolonged half-life and a reduced frequency of adverse effects when compared to mouse monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The Chimeric human antibodies are useful in the treatment of cancer, especially that which is of neural ectodermal origin.

In contrast to prior art constructs based on mouse monoclonal antibodies, the chimeric human antibodies do not cause anti-mouse immunoglobulin
                                                                                                                                                                                                                                                                                           61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCQOWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                            61 pgkapklliystsnlasgvpsrfsgsgsgtdftftisslgpediatyycggrssypytfg 120
                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                    1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This sequence is forms a stage in the production of anti-GM2 human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Intermediate sequence in the construction of human antibodies.
                                                                                                                                                                                    Score 590; DB 20; Length 133;
Pred. No. 7.5e-37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           production.
The chimeric human antibodies have a prolonged half-life and a
                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunoglobulins; antibody; chimeric; vector; expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hasegawa M, Koike M, Kuwana Y, Nakamura K;
                                                                                                                                                                                                                6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chimeric human antibody expression vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Column 109; 188pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          light chain; heavy chain; amino acid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY28371 standard; Protein; 133 AA.
                                                                                                                                                                                    90.18;
                                                                                                                                                                                                89.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KYOW ) KYOWA HAKKO KOGYO KK.
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                                                                                                                                                                                          Best_Local Similarity 89.89
Matches 115; Conservative
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                                                                                                                                     Sequence 133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-468416/39.
                                                                                                                                                                                                                                                                                                                                                     121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chimeric antibodies.
                                                                                                                                                                                                                                                                                                                                                                                 121 ggtkveik 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAX99497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US5939532-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-AUG-1999.
                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shitara K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hanai N,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gene recombinant antibodies, useful for diagnosis and as remedies for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diseases due to abnormal neovascularization e.g. proliferation or metastasis of solid tumor, rheumatoid arthritis, diabetic retinopathy and psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                     Anti-human VEGF receptor Flt-1 antibody related peptide sequence #94.
reduced frequency of adverse effects when compared to mouse monoclonal
                                                                                                                                                                                            61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCQQWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                                                                                           Antibody; human; vascular endothelial growth factor; VEGF receptor; Flt-1; neovascularisation; cell proliferation; metastasis; tumour; rheumatoid arthritis; retinopathy; psoriasis.
                                                                                                                             1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                          Gaps
                                                                                                        ;
0
                                                                           90.1%; Score 590; DB 20; Length 133; 89.8%; Pred. No. 7.5e-37; Indels tive 6; Mismatches 7; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nakamura K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 28; Page 202; 210pp; Japanese.
                                                                                                                                                                                                                                                                                                                                AAY77599 standard; peptide; 126 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shitara K, Ito M, Kawada Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98JP-0139000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-JP02661.
                                                                                                                                                                                                                                                                                                                                                                                     08-MAY-2000 (first entry)
                                                                                                            Matches 115; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-072431/06.
                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAZ8771
                                                                                                                                                                                                                                                                      121 ggtkveik 128
                                                  133 AA;
                                                                                                                                                                                                                                             121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9960025-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-MAY-1998;
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                                                    Sednence
                                                                                        Query Match
                                                                                                        Best Local
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This invention relates to a reagent for detecting differentiation of monocytes and macrophages from haematopoietic stem cells, containing a monocytes and macrophages from ham vascular endothelial growth factor (VEGF) substance which binds to human vascular endothelial growth factor (VEGF) ceceptor Flt-1. The invention also includes a method for diagnosing a receptor Flt-1. The invention of monocytes and macrophages is implicated, using the reagent, and an agent for the treatment of diseases implicated, using the method, containing a substance which binds to Flt-1 diagnosed using the method, containing a substance which binds to Flt-1. Diseases or a substance which inhibits the signal transduction of Flt-1. Diseases which may be diagnosed or treated include inflammation, delayed which may be diagnosed or treated include inflammation, delayed which may be diagnosed or treated include inflammation, delayed concluding anti-human Flt-1 monoclonal antibody fragments, and coligonuclectides used in the construction of the antibody. The monoclonal coligonuclectides used in the reagent of the invention of the antibody coligonucles Protein sequences AAB78848 - AAB78870 represent fragments by a sequences. Protein sequences AAB78848 - AAB78870 represent fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Substances binding to human vascular endothelial growth factor receptor Flt-1, used for diagnosis and treatment of inflammatory diseases, arteriosclerosis, cancer and delayed hypersensitivity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Differentiation; monocyte; macrophage; haematopoietic stem cell; cancer; vascular endothelial growth factor; VEGF; Flt-1; inflammation; antibody; delayed hypersensitivity; malignant tumour; arteriosclerosis.
                                                                                                                                                                                    1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                          Anti-human Flt-1 antibody VL CDR protein sequence SEQ ID 90.
5; Indels
       5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Page 157; 164pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB78868 standard; Protein; 126 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-JUN-2000; 2000WO-JP03957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99JP-0171709.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-APR-2001 (first entry)
                  Matches 116; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shitara K, Shibuya M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-080847/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAF70244.
                                                                                                                                                                                                                                                                                                                                                                                                                          119 qgtkveik 126
                                                                                                                                                                                                                                                                                                                                                         121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200079275-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB78868;
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126 AA;

Sequence

89.6%; Score 587; DB 21; Length 126; 90.6%; Pred. No. 1.2e-36;

Query Match Best Local Similarity

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                               Ξ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence is a fragment of an antibody of the invention.

The antibody of the invention is a human complementarity determining region transplanted antibody that reacts specifically with ganglioside it, can be used for the netibody, and vectors and transformants containing antibody itself can be used as an anti-tumour agent to a diagnostic tool for related cancers. The antibody has antitumour agent or as a diagnostic ganglioside GMZ positive cells.
                                                                 61 PGKARKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCQQWSSYPLTFG 120
                                                                          Ganglioside GM2; antibody; complementarity determining region; cancer;
                              Gaps
                               1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                        61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYXCQQWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2,
                                                                                                                                                                                                                                                                                                                                                                                  human type complementarity determining region transplanted ntibody against ganglioside GM2 - useful as an anti-tumour agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 126;
                         5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 19; Length 130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
  89.6%; Score 587; DB 22;
90.6%; Pred. No. 1.2e-36;
ive 5; Mismatches 5;
                                                                                                                                                                                                             Fragment of ganglioside GM2 targeting antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2e-36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                  and as a diagnostic for related cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.2%; Score 584;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.
                                                                                                                                                          AAW73179 standard; Protein; 130 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                   Example 3; Page 38; 66pp; Japanese.
                                                                                                                                                                                                                                                                                                                                          (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                                                                                                                                                                                                                                                            97JP-0066981.
                116; Conservative
                                                                                                                                                                                           22-JAN-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
         Similarity
                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-575904/49.
                                                                                                   121 GGTKVEIK 128
                                                                                                                   119 ggtkveik 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; AAV08065.
                                                                                                                                                                                                                                                                                                                                                                                            antibody against
                                                                                                                                                                                                                                                                        JP10257893-A.
                                                                                                                                                                                                                                                                                                        19-MAR-1997;
                                                                                                                                                                                                                                                                                        29-SEP-1998.
                                                                                                                                                                                                                                                                                                                         19-MAR-1997;
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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This sequence is a fragment of an antibody of the invention. The antibody of the invention is a human complementarity determining region transplanted antibody that reacts specifically with ganglioside it, can be used for the antibody, and vectors and transformants containing antibody itself can be used as an anti-tumour agent or the antibody. The tool for related cancers. The antibody has an anti-tumour agent or as a diagnostic ganglioside GMZ positive cells.
61 pgkapklliystsnlasgvpsrfsgsgsgtdftfisslqpediatyycqqrssypytfg 120
                                                                                                                                                                                                                                                                                                         Ganglioside GM2; antibody; complementarity determining region; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 PGKAPKLLIYDTSNLASGVPSRFSGSGSGTDYTLTISSLQPEDFATYYCQQWSSYPLTFG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A human type complementarity determining region transplanted antibody against ganglioside GM2 - useful as an anti-tumour agent and as a diagnostic for related cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 584; DB 19; Length 130;
Pred. No. 2e-36;
6; Mismatches 8; Indels
                                                                                                                                                                                                                                                                      Fragment of ganglioside GM2 targeting antibody.
                                                                                                                                                             AAW73180 standard; Protein; 130 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 3; Page 39; 66pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY28375 standard; Protein; 130 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97JP-0066981.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97JP-0066981.
                                                                                                                                                                                                                                  22-JAN-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-575904/49.
                                     121 GGTKVEIK 128
                                                             Best Local Similarity
Matches 114; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   130 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAV08086.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 GGTKVEIK 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 ggtkveik 128
                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                    JP10257893-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                     29-SEP-1998.
                                                                                                                                                                                                     AAW73180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                            RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY28375
ID AAY2
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XX XX KW KW KW XXX OS OS COS FFH FFT FFT

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61 pgkapklliystsnlasgvpsrfsgsgsgtdftftisslqpediatyycqqrssypytfg 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hanai N,
                                                                                                                                       AAY28376;
                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                                                     Protein
                                                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                     Domain
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                                                                                             15
                                                                                                        AAY28376
                                                                                                                                                     δλ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chimeric human antibodies of the invention are useful in the treatment chimeric human antibodies of the invention of cancer, especially that which is of neural ectodermal origin. In contrast to prior art constructs based on mouse monoclonal antibodies, the chimeric human antibodies do not cause anti-mouse immunoglobulin production.

The chimeric human antibodies have a prolonged half-life and a reduced frequency of adverse effects when compared to mouse monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MDFQVQIFSFLLISASVILSRCDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is the amino acid sequence derived from AAZ06275, which can be amplified from the plasmid pBSL16 by the mutant primers AAZ06273 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.2%; Score 584; DB 20; Length 130;
89.1%; Pred. No. 2e-36;
tive 6; Mismatches 8; Indels (
                                                                                                                                                                                                                                                                                            /label="CDR3"
/note="Complementarity determining region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hasegawa M, Koike M, Kuwana Y, Nakamura K;
                                                                                                    antibody; nucleotide; genomic; hypervariable region; chimeric; light chain; heavy chain; CDR; plasmid; complementarity determining region.
                                                                                  Human chimeric anti-GM2 heavy chain version 1.
                                                                                                                                                                                                                               'label "Mature heavy chain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chimeric human antibody expression vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 3; Column 125-127; 188pp; English.
                                                                                                                                                                                                          /label= "signal peptide"
                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                       /label= "CDR1"
                                                                                                                                                                                                                                                                              "CDR2"
                                                                                                                                                                                                                                                                                                                                                                                                                                    (KYOW ) KYOWA HAKKO KOGYO KK.
                                                                                                                                                                                                                                                                                                                                                                                                      95US-0483528.
93US-0116778.
                                                                                                                                                                                                                                                                                                                                                                               95US-0483528.
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                                                                                                                                                                                                                                                                                          108
                                                                     (first entry)
                                                                                                                                                         Chimeric - Homo sapiens.
Chimeric - Mus sp.
                                                                                                                                                                                                                                                                                /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 114; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-468416/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            130 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAZ06275
                                                                                                                                                                                                                                                                                                                                                                                                                  07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                         07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antibodies.
                                                                                                                                                                                                                                                                                                                                        US5939532-A.
                                                                                                                                                                                                                                                                                                                                                              17-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shitara K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                     04-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hanai N,
                                                AAY28375;
                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                               Protein
                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                          Domain
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Chimeric human antibodies of the invention are useful in the treatment chimeric human antibodies of the invention of cancer, especially that which is of neural ectodermal origin. Or cantrast to prior art constructs based on mouse monoclonal antibodies, the chimeric human antibodies do not cause anti-mouse immunoglobulin production.

The chimeric human antibodies have a prolonged half-life and a reduced frequency of adverse effects when compared to mouse monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This is the amino acid sequence derived from AAZ06278, which can be amplified from the plasmid pBSL16 by the mutant primers AAZ06276 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Complementarity determining region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hasegawa M, Koike M, Kuwana Y, Nakamura K;
                                                                                                                                                                                                                                                                                                   antibody; nucleotide; genomic; hypervariable region; chimeric; light chain; heavy chain; CDR; plasmid; complementarity determining region.
                                                                                                                                                                                                                                                           Human chimeric anti-GM2 light chain version 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= "Mature heavy chain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chimeric human antibody expression vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 3; Column 129; 188pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                      AAY28376 standard; Protein; 130 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= "CDR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "CDR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "CDR2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (KYOW ) KYOWA HAKKO KOGYO KK.
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93US-0116778.
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/label= "C
                                                                                                                                                                                                                                  04-NOV-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                      Chimeric - Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-468416/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 130 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAZ06278
                                                                                                                                                                                                                                                                                                                                                                                                                             Chimeric - Mus sp.
121 GGTKVEIK 128
                         07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUN-1995;
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        Query Match
        89.2%; Score 584; DB 20; Length 130;

        Best Local Similarity
        89.1%; Pred. No. 2e-36;

        Matches 114; Conservative 6; Mismatches 8; Indels 0; Gaps 0;

        Qy 1 MDFQVQIFSFLLISASVILSRGDIQMTQSPSSLSASVGDRVTITCSATSSITYMSWYQQK 60

        Db 1 mhfqvqifsfllisasvimsrgdiqltqspsslsasvgdrvtitcsasssvsymhwyqqk 60

        Qy 61 PGKAPKLLIYDTSNLASGVPSRFSGSGGTDYTLTISSLQPEDFATYXCQQWSSYPLTFG 120

        Db 61 pgKapklwlystsnlasgvpsrfsgsgsgtdffftlsslqpediatyycqgrssypytfg 120

        Qy 121 GGTKVEIK 128

        Db 121 ggtkveik 128
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Search completed: May 7, 2002, 12:00:48

